

Design Technology – Year 9

What are we learning this half-term?

Design Technology at Whitelands Academy operates on a rotation system – this means that throughout the year, students ‘rotate’ around the specialised classrooms.

Whitelands is fortunate enough to have 3 specialist teaching classrooms, so Design Technology is split into Food Preparation and Nutrition, Product Design and Graphics. All students in Year 9 are divided into smaller class sizes, maximum of 22 students, therefore students are not guaranteed to start with a particular subject. All students will have the opportunity to work in all three subject areas and complete the same projects.

Throughout the year students will have a full term in each subject area. Please see below for more information about each subject:

Food Preparation and Nutrition

Students are provided with a recipe book that covers all practical tasks within the 14-week period. Students follow a 2-week timetable, so have a double lesson one week and a single lesson the next week. On weeks when students have double lessons, students make a practical dish to take home. On weeks when students have a single lesson students focus on the subject knowledge that links to the practical tasks they are completing. For example, when students create a sausage plait, they will learn about different types of pastry.

Year 9 Recipes: *super smoothie, swiss roll, cheese ravioli pasta, ginger cake, sausage plait, Chelsea buns, chicken cordon bleu.*



Practical Skills: use of the food processor/blender, cooking with raw chicken, raising agents, rolling a swiss roll, use of the pasta machines, making pasta, setting mixtures, types of pastry, making rough puff pastry, use of the oven and the hob, use of the temperature probes.

Product Design

In year 7 and 8, students create projects using timbers and/or boards. In year 9, students are introduced to polymers. Year 9 students must research, design and make an acrylic clock – the students are given a design brief and told that their clock designs must be aimed at children, so they need to be bright, colourful and fun.

Practical Skills: use of TS Design and the laser cutter (CAD/CAM), use of wet/dry paper, use of the band facer, use of hand tools (tenon saw, coping saw, wood files, try square, steel rule), thermosetting and thermoset plastic, use of adhesives to bond plastics.

Graphics

Students are provided with a design brief and students have to research, design and make a model of a shop front. The shop front has an A4 plywood base and the students can use foam board or mount board to build the structure of the building.

Practical Skills: graphical drawing skills, use of drawing equipment, use of the computers, use of the craft knives, sand paper, plywood (manufactured board), knowledge of different papers and boards, use of the hot glue guns, use of acrylic paint.

Resources you can use at home:

Technology Student - <https://www.technologystudent.com/equip1/equipex1.htm>

Design and Technology - BBC Bitesize - <https://www.bbc.co.uk/bitesize/guides/zrstng8/revision/1>

Food a Fact of Life – <https://www.foodafactoflife.org.uk/11-14-years/cooking-11-14-years/hygiene-and-safety-11-14-years/>



Optional home learning tasks:

Food Preparation and Nutrition

Continue to use your recipe book to practice and develop the practical skills you are learning in school. Make sure that there is an adult present with you if you are using sharp knives, the oven or the hob.

Product Design

Create a poster to educate people on polymers, with a focus of thermoset and thermoplastic polymers. Use images and colour to help convey the information in an exciting way.

Graphics

On a piece of plain paper, create a design for another, completely different, shop front. Use the graphical drawing skills you have learnt in school and make sure you include detailed annotations to help convey the ideas for the design.